

S/194/61/000/009/013/053  
D222/D302

9,7200

AUTHORS: Morozov, M.A. and Nikolayev, N.S.

TITLE: Electronic analogue computer for traction calculations

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 9, 1961, 17, abstract 9 B115 (V sb. Kibernetika i avtomatiz. trasp. protsessov, M., Transzheldorizdat, 1960, 233-245)

TEXT: An analogue computer ATP -1 (ATR-1) is described which has been developed by the NII control VM, Mosgiprotrans and MPS to facilitate and accelerate traction calculations. The principle of mathematical analogues was used in the construction. The number of variables that can be represented in the model is practically unlimited. The general form, block-schematic diagram, circuit diagrams of the units, the method of setting up problems and solving them are given. 7 figures. 5 references. / Abstracter's note: Complete translation /

Card 1/1

MOROZOV, M. A.

Central Inst. of Epidemiology and Microbiology, (-1944-)

"The Staining by Silvering after Morozov of Bacteria Floreline,"

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 6, 1944.

MOROZOV, M. A.

Central Inst. Epidemiology and Microbiology, (-1944-)

"To the methods of titration of microbic suspensions on the dry preparations,"

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 10-11, 1944

MOROZOV, M.A.

"The Achievements of Soviet Science in the Study of Virus of Smallpox Vaccine."  
SO: Zhurnal Mikrobiologiy, Epidemiologiy i Immunobiologiy, No.11,1947

MOROZOV, M.A.; KRAVCHENKO, A.T., redaktor.

[Atlas of the morphology of viruses] Atlas morfologii virusov.  
Moskva, 1951. 174 p.  
(VIRUSES)

(MLBA 9:5)

MOROZOV, M. A.

Oct 53

USSR/Medicine - Viruses

"Specific Agglutination and Lysis of Viruses," M. A. Morozov, M. I. Korol'kova, Smallpox  
Div, Inst of Epidemiol and Microbiol im Samaleya, Acad Sci USSR  
Zhur Mikro Epid i Immun, No 10, pp 72-75

Lysis of elementary bodies of vaccinia virus takes place as a result of the action  
of hyperimmune serum. Best method of lysis of a purified suspension of elementary  
bodies is by sedimentation, without the use of ether. The virus subjected to lysis  
loses capacity for infection. M. I. Korol'kova obtained similar results with elementary  
bodies of A virus of influenza in 1951.

26cT24

MOROZOV, M.A.

Virus-like bodies in schizophrenia. Zhur. nerv. i psikh. 54 no.9:  
735-740 S '54. (MLRA 7:9)

1. Institut virusologii AMN SSSR.  
(SCHIZOPHRENIA, etiology and pathogenesis,  
virus-like bodies)  
(VIRUSES,  
schizophrenia, virus-like bodies)

MOROZOV, M.A.; KONSTANTINOVA, V.I.; KOROL'KOVA, M.I.

Relation of the nervous system to the origin and course of  
the vaccination reaction. Zhur.mikrobiol.epid. i immun.no.11:  
27-31 N '55. (MLRA 9:1)

1. Iz oспennogo otdela Instituta epidemiologii i mikrobiologii  
imeni N.F.Gamalei AMN SSSR (dir.-prof. G.V.Vygodchikov)  
(NERVOUS SYSTEM, physiology,  
eff. on reaction to vacc. in rabbits)  
(VACCINES AND VACCINATION,  
eff. on nervous system physiol. in rabbits)



MOROZOV, M. A., and KOROL'KOVA, M. I.,

"On Obtaining a Highly Virulent Heat and Dryness Resistant Strain of Small Pox Vaccines" [paper read at a meeting of the institute's Scientific Council held during the first half of 1955.] Proceedings of Inst. Epidem and Microbiol im. Gamaleya 1954-56.

Variola Division, Morozov, M. A., head, Inst Epidem and Microbiol im. Gamaleya AMS USSR.

SO: Sum 1186, 11 Jan 57.

MOROZOV, M. A., KONSTANTINOVA, V. I., and KOROL'KOVA, M. I.

"Concerning the Origin and Course of a Vaccination Process Which is  
Dependent on the Condition of the Nervous System." Proceedings of Inst. B  
Epidem and Microbiol im. Gamaleya 1954-56.

Variola Division, Morozov, M. A., head, Inst. Epidem and Microbiol im.  
Gamaleya AMS USSR.

SO: Sum 1186. 11 Jan 57.

USSR/Virology - Human and Animal Viruses.

E-2

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 406

Author : M.A. Morozov and M.I. Korol'kova

Inst :

Title : Modification of the Virus of Smallpox.

Orig Pub : Izmenchivost' mikroorganizmov, M., Medgiz, 1956, 113-116

Abst : In order to establish the transformation of the virus of natural smallpox into a vaccine virus, two experiments were carried out on rabbits with the subsequent vaccination of calves with the vaccine. The initial virus of natural smallpox which possessed strong pathogenic and toxic properties, after each passage, was transformed into a good quality virus of smallpox vaccine, producing on vaccination of humans only local symptoms and serving as an excellent prophylactic agent against natural smallpox. By passages in animals, this new quality was strengthened and transmitted by heredity, providing valuable and high

Card 1/2

USSR/Virology - Human and Animal Viruses.

E-2

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 406

quality production strains from which smallpox  
vaccine was prepared.

Card 2/2

MOROZOV, M.A.

Instructions on laboratory methods for diagnosing chickenpox and  
smallpox; a scheme. Vop.virus. 1 no.1:55-57 Ja-F '56. (MLBA 20:1)  
(SMALLPOX) (CHICKENPOX)

USSR/Virology - Human and Animals Viruses.

E-3

Abs Jour : Ref Zhur - Biol., No 12, 1958, 52652

Author : Horozov, M.A., Korol'kova, M.I.

Inst : -

Title : Experiments in Titration of Immunogenic Properties of Smallpox Vaccine.

Orig Pub : Zh. mikrobiol., epidemiol., i immunobiologii, 1958, 7, 7-10

Abstract : Rabbits were subdurally infected by neurolympus and at the same time were vaccinated with the tested dermovaccine strains. A record was kept of the number of survivors. The authors believe that the number of rabbits surviving a subdural infection of 4-5 Del is directly proportional to the level of immunogenic properties of the smallpox vaccine strain, vaccinated at the same time onto the skin of the back. Of the 8 strains tested, the most immunogenic one was found to be the neurolympus strain, in second

Card 1/2

- 6 -

USSR/Virology - Human and Animals Viruses.

S-3

Abs Jour : Ref Zhur - Biol., No 12, 1956, 52652

place was the azinovaccine, while the Krasnodar strain  
was weaker than the others. -- F.I. Leykina

Card 2/2

MOROZOV, M.A.; KONSTANTINOVA, V.I.

Comparative evaluation of methods for determining immunizing properties  
of smallpox vaccinal strains. Zhur.mikrobiol.epid. i immun. 28 no.  
10:75-78 O '57. (MIRA 10:12)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.  
(VACCINIA, virus,  
vaccinal strains, determ. of immun. properties (Rus))



MOROZOV, M.A.

Answer to Dr. Mastrodjiovanni and his criticism of one of the lectures  
by members of the Soviet delegation at the Fifth International  
Congress of Protection of Mental Health. Zhur.nevr. i psikh. 57  
no.8:1054-1055 '57. (MIRA 10:11)  
(VIRUS DISEASES) (SCHIZOPHRENIA)

*MORDOZOV, V.M.*

00-50-5-10/57

AUTHOR: Bergol'ts, V.M., Candidate of Medical Sciences

TITLE: On the Problem of Etiology of the Neoplasms (K voprosu ob etiologii opukholey) At the Second All-Union Congress of Oncologists (Na 2-m vsesoyuznom s''yezde onkologov)

PERIODICAL: Priroda, 1958, Nr 5, pp 57-59 (USSR)

ABSTRACT: The Second All-Union Conference of Oncologists in January 1958 dealt with problems of the etiology of tumors, pre-tumor diseases, chemotherapy of tumors, tumors of the bones, and the organization of the anti-cancer fight in the USSR. At the first oncologists' conference 11 years ago, only one paper by Professor L.A. Zil'ber dealt with the virus theory of cancer. This theory became one of the principal themes at the new conference. It was opened by N.N. Petrov, the oldest oncologist of the USSR and Hero of Socialistic Labor. The first paper was delivered by Professor L.A. Zil'ber. It was intitled "On the Virus Nature of the Tumors of Man" and described over 20 tumors and similar processes in animals, the virus origin of which he thinks has been proved. Among them were the sarkoma and leucosis of chickens, the papilloma and fibroma of rabbits, mammary gland cancer and

Card 1/4

26-55-5-1037

On the problem of Etiology of the Neoplasms. At the Second All-Union Congress of Oncologists

leucosis of mice. Under the electron microscope, virus-like etiologic agents were found in matter isolated from the tissues of men suffering from leucosis, but the virus origin of most malignant tumors of man have not as yet been demonstrated. A.D. Timofeyevskiy found virus-like globular bodies measuring from 40 to 80 millimicrons in the extracts of diverse tumors of man (cancer of the stomach, the mammary gland, the lung, sarkoma, etc). Immunological reactions showed the specific nature of these bodies. Professor L.F. Larionov criticized the virus theory. He based his doubts on data from medical literature but thought it was possible that some animal tumors were of virus origin, although there is no evidence yet with respect to man. Professor M.A. Morozov, in his paper "Virusoscopic observations in Malignant Tumors of Man", holds that virus penetration from without is the etiologic factor. I. N. Mayskiy and M. M. Kapichnikov delivered a paper on the immunology of malignant neoplasms. In sarkoma of chickens and several tumors of man, special antigens were found. This agrees with A.D. Timofeyevskiy's discovery of virus-like bodies

Card 2/4

26-58-5-10/57

On the Problem of Etiology of the Neoplasms. At the Second All-Union Congress of Oncologists

found in the blood and tissues of people suffering from malignant neoplasms. These bodies could be cultivated in chicken embryos and possess specific antigen properties. It was demonstrated in the State Oncological Institute imeni P.A. Gertsen that in the organism of leucosis patients a non-cellular etiologic agent can be found that has many characteristics of a virus. Most oncologists, however, did not hold true that viruses are the only etiologic factor in malignant tumors. They think that chemical substances and penetrating radiation must be considered of similar etiologic importance. The papers delivered by L.M. Shabad, M.F. Glazunov, A.M. Neyman and others were concerned with the morphological and experimental data characterizing the pre-cancer stage in various tissues and organs of the animal organism. According to L.M. Shabad, every cancer has its special "pre-cancer". The importance of early diagnosis and therapeutic measures was stressed once more. Professor L.F. Larionov pointed out that more than 30 chemical drugs have been successfully administered against malignant tumors in recent years in the USSR. The drugs include the follow-

Card 3/4

26-58-5-10/57

On the Problem of Etiology of the Neoplasms. At the Second All-Union Congress of Oncologists

ing groups: hormones (estrogens, androgens, cortisone); antifolic drugs (aminopterin); derivatives of purine and pyrimidine (mercaptopurine); chlorethylamines and their derivatives (embichine, nitromine, derganol, dopan sarko-lysine); ethylenimines (TET, TEF, E 39, etc); esters of methanesulfoxylic acids (mileran); antibiotics (aktinomycin, sarkomycin), etc. In some cases, such as lymphogranulomatosis, metastases of cancer of the mammary gland, seminoma, etc; long-term healing was achieved by aid of these drugs. While they are useful in cases of lymphogranulomatosis and leucoses, there is almost no way they can be applied in the more important and frequent cases of malignant tumors of the stomach, alimentary tract, lungs, etc. Although 23 papers dealt with the results of new experimental research, new methods of a combined chemotherapy, radiation treatment and surgical measures were recommended.

ASSOCIATION: Gosudarstvennyy onkologicheskiy institut imeni P.A. Gertsena, Moskva (State Oncological Institute imeni P.A. Gertsen, Moscow)

AVAILABLE: Library of Congress

Card 4/4 1. Cancer research - USSR 2. Tumors - Therapy

KOROZOV, M.A.

Basic results of studying smallpox and other viral diseases in the USSR; a review. Zhur.mikrobiol.epid. i immun. 29 no.7:90-98 Jl '58  
(MIRA 11:8)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamale i AMN SSSR.  
(SMALLPOX,  
review (Rus))  
(VIRUS DISEASES,  
review (Rus))

MOROZOV, M.A.; BORISHPOLETS, V.I.; BORISHPOLETS, Z.I., kand.med.nauk

Clinical aspects, etiology, and treatment of Behcet syndrome. Vest.  
oft. 71 no.2:22-27 Mr-Apr '53. (MIRA 11:4)

1. Deystvitel'nyy chlen AMN SSSR (for Morozov). 2. Kafedra glaznykh  
bolezney (zav.-prof. M.L. Krasnov) Tsentral'nogo instituta  
usovershenstvovaniya vrachey i ospennyy otdel Instituta epidemiologii i  
mikrobiologii imeni N.F. Gamaleya AMN SSSR.

(BEHCET SYNDROME

clin. aspects, etiol. & ther.)

REPORT IV, 1. .

In the method of viroscopy according to Kerczov. (Physical and  
physiological bases.)

Report submitted at the 13th All-union Congress of Hygienists,  
Epidemiologists and Infectionists, 1950.



MOROZOV, M.A.; KONSTANTINOVA, V.I.

Determination of smallpox vaccine virulence. Zhur.mikrobiol., epid. i  
immun. 30 no.11:56-59 N '59. (MIRA 13:3)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.  
(SMALLPOX immunol.)  
(VACCINES)

MOROZOV, M.A.

Viroscopic observations in scarlet fever. Zhur. mikrobiol. epid.  
i immun. 31 no. 5:34-36 My '60. (MIRA 13:10)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN  
SSSR.

(SCARLET FEVER)

MOROZOV, M.A.; KONSTANTINOV, V.I.

Correlation between virulence and immunogenic properties of  
vaccinal smallpox strains. Zhur.mikrobiol. epid. i immun. 32  
79-84 Ap '61. (MIRA 14:6)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN  
SSSR.

(SMALLPOX)

AMILNY, R. L., 1948, M. E. N. M. 1, 1948.

Report of the U.S. Army Medical Research and Development Command, Fort Detrick, Maryland, 1948.

MOROZOV, M.A.

System for the wetting of extrusion rubber goods with emulsions and suspensions. Kauch. 1 rez. 24 no.9:54-56 '65.

(MIRA 18410)

1. Yaroslavskiy zavod rezinovykh tekhnicheskikh izdeliy.

LYUBOV, D. I. . Donets'kij, MICHAIL, M. A. (Ukraine)

1949-1950 replacement and lifting system of electric locomotives. *Zel. i ch. inzh. i st. no. 13-41. M. 1950. 16:50*

1. Zamestitel' nachal'nika sluzhby lokomotivnogo kirovogo  
Petrovskiy, Nikolai (Donetsk). 1. Glavnyy inzh. sluzhby  
lokomotivnogo kirovogo Petrovskiy, Nikolai M. 1950.

MOROZOV, M.A.; BALAYAN, L.B.; KULIKOVA, M.P.

Stability of dry smallpox vaccines treated with penicillin.

Zhur. mikrobiol., epid. i immunit. 40 no.6:105-108 Je '63.

(MIRA 17,6)

1. Iz Instituta epidemiologii i mikrobiologii imeni Samalei  
AMN SSSR.

YILINOV, I.I.; SEVRYGIN, N.A.; BELYAJOV, V.F.; AHIRAKIMAN, V. K.; MARCHOV,  
M.D.; MIKHAYLOV, A.P.; BOKZHANOV, G.G.; TASHCHEV, V.F.

Resolutions of the Kazakhstan Petrographic Conference. Izv. V.  
Kazakh. SSR. Ser. geol. 22 no.5:98-103. 1965.

(MIRA 1965)



BRODOVOY, V.V.; MOROZOV, M.D.

Present status of geophysical studies in Kazakhstan. Izv. AN Kaz.  
SSR. Ser. geol. no.4:37-52 '60. (MIRA 14:2)  
(Kazakhstan—Prospecting—Geophysical methods)

ANDREYEV, A.P.; BRODOVOY, V.V.; GOL'DSHMIDT, V.I.; KUZ'MIN, Yu.I.; MOROZOV,  
M.D.; EYDLIN, R.A.

Crustal subsurface structure of Kazakhstan and methods for its  
study. Izv. AN Kazakh. SSR. Ser. geol. 21 no.4:3-15 J1-Ag '64.  
(MIRA 17:11)

1. Iliyskaya geofizicheskaya ekspeditsiya i Geofiztrest, Alma-Ata.

ANDREYEV, A.P.; BRODOVY, V.V.; GOL'DSHMIDT, V.I.; KUZ'MIN, Yu.I.; MOROZOV,  
M.D.; EYDLIN, R.A.

Distribution of deep faults in Kazakhstan. Izv. AN Kazakh. SSR. Ser.  
geol. 22 no.4:11-17 J1-Ag '65. (MIRA 18:9)

ACC NR: AT6028379

SOURCE CODE: UR/0000/65/000/000/0142/0154 15

AUTHOR: Bachin, A. P.; Bekzhanov, G. R.; Bredovoy, V. V.; Gol'dshmidt, V. I.; Zhivoderov, A. B.; Zlavdinov, L. Z.; Ivanov, O. D.; Klenchin, I. N.; Kolmogorov, Yu. A.; Kotlyarov, V. M.; Kuz'min, Yu. I.; Kuminova, M. V.; Kunin, N. Ya.; Lyubetskiy, V. G.; Melent'yev, M. I.; Morozov, M. D.; Tret'yakov, V. G.; Tychkova, T. V.; Tsaregradskiy, V. A.; Eydlin, P. A.

ORG: none

TITLE: Geophysical sketch map of Kazakhstan

SOURCE: International Geological Congress. 22d, New Delhi, 1964. Geologicheskiye rezul'taty prikladnoy geofiziki (Geological results of applied geophysics); doklady sovetskikh geologov, problema 2. Moscow, Izd-vo Nedra, 1965, 142-154

TOPIC TAGS: ~~Kazakhstan~~ geophysics, map, ~~geophysical mapping~~, tectonics, ~~regional study~~  
*regional study*

ABSTRACT: On the basis of regional geophysical and geological investigations (seismic, gravimetric, magnetoelectric), a composite geophysical sketch map of the physical fields of Kazakhstan has been compiled. From this map, the major tectonic zones, deep structures, and geological structural zones are defined. Long zones representing high field gradients in the gravitational and magnetic fields reflect deep geosutures, which seismic sounding data suggest are scarps in the M-discontinuity

Card 1/2

ACC NR: AT6028379

Among the major structural zones of Kazakhstan defined are: 1) the Turgayskaya, 2) the Petropavlovskaya, 3) the Uspenskaya, 4) the Tokrauskaya, and 5) the Dzhalaik-Naymanskaya. Regions of magmatism are also defined. In the tectonic depression zones, contour lines indicate the thickness of the sedimentary cover, overlying the folded basement, and possible oil-bearing formations. Orig. art. has: 1 figure. [DM]

SUB CODE: 08/ SUBM DATE: 06Jan65/ ATD PRESS: 5063

Curd 2/2/

Acc No: 1001000

Doc No: 1001000/1001000/1001000/1001000

Author: Morozov, M. S.; Shukla, V. N.; Shukla, V. N.; Shukla, V. N.

TITLE: Geophysical research in Kazakhstan and its results

SOURCE: Ref. zh. Geofizika, Abs. 12096

REF SOURCE: Sb. Vopr. geol. Kazakhstana. Alma-Ata, Kazan, 1980, 190-217

TOPIC TERMS: geophysics, seismic prospecting, gravimetric prospecting, oil prospecting, 1001000/1001000

ABSTRACT: Geophysical studies were started in Kazakhstan in 1949, and it has been responsible in all stages of geological research in the country. The results of seismic prospecting, gravimetric, and radio-geophysical studies have been used to determine the regional earth crust structure in depth, to predict the presence of oil drilling, search for useful minerals and to determine the direction of a schematic geophysical map of Kazakhstan. The results of the studies have been used to determine the directions for further development of the geophysical research in the country. The importance of standard operational methods for the determination of geologic and geophysical conditions is noted. (Translation of abstract)

Doc Code: 03

Card 1/1

(01 000 000 000)

ACC NR: AR6032150 SOURCE CODE: UR/0169/66/000/006/D012/D013

AUTHOR: Morozov, M. D.; Gol'denberg, Ye. S.; Brodovoy, V. V.

TITLE: The state of geophysical operations in Kazakhstan and ways to improve their geological effectiveness

SOURCE: Ref. zh. Geofizika, Abs. 6D87

REF SOURCE: Sb. Geofiz. issled. v Kazakhstane. Alma-Ata Kazakhstan, 1965, 3-8

TOPIC TAGS: seismic prospecting, prospecting, seismologic station, geologic survey, geographic survey, geochemical survey, gravimetric survey, nonferrous metal, rare metal, oil bearing area, gas bearing area/Kazakhstan

ABSTRACT: The extent of geophysical operations in Kazakhstan is increasing continuously. By 1965 the number of seismic prospecting teams in the republic increased to 93 (as against 83 in 1962), the number of electric prospecting teams to 202 (as against 180), magnetic prospecting teams to 200 (as against 150), and the number of gravimetric prospecting teams increased to 124 (as against 77). It is noted that since 1948 the geophysical crews and expeditions working in mining areas

Card 1/3

UDC: 550.830(574)

ACC NR. AR6032150

were set up as organizations equipped to solve specific geological tasks by a set of geophysical, geological, and geochemical methods. In recent years the methods and equipment introduced and developed in Kazakhstan include the following: those for geophysical and seismological stations with magnetic recording, electric dipole probing and formation of electromagnetic fields; ANCh-1 electrical prospecting equipment; M-18 magnetometers; the AMM-13 airborne magnetometer; the ASG-46 air geophysical station; radio geodetic tie-in of the planning situation of air geophysical routes; and the geochemical study of accessory elements and of the primary halves of metal dispersion. Methods of induced polarization and high-accuracy gravimetry, which have made it possible to discover new deposits of iron, chromites and nonferrous metals, are being applied in the mining areas. The use of digital computers in the processing of geophysical materials has been initiated. The introduction of seismological investigations within the complex of geophysical methods has been in progress in recent years. A rational combination of seismological observations and seismic operations in depth will aid in investigating hidden regions by seismic methods. Prospecting operations for oil- and gas-bearing structures are being expanded, especially in Western Kazakhstan. Together with seismic prospecting in areas promising to yield oil or gas, use should also be made of gravimetric surveying. Studies directed toward ascertaining the possibility of prospecting

Card 2/3



ACC NR: AR6032150

directly for oil and gases by geophysical and geochemical methods should be continued. In searches for ore mineral deposits, the problem of developing methods for prospecting nonferrous- and rare-metal deposits overlapped by a thick mantle of loose formations, becomes ever more urgent. Yu. Kaznacheyeva. [Translation]

SUB CODE: 08/

Card 3/3

ACC NR: AP7004554

SOURCE CODE: UR/0215/66/000/006/0034/0047

AUTHOR: Andreyev, A. P.; Brodovoy, V. V.; Gol'dshmidt, V. I.; Kuz'min, Yu. I.;  
Morozov, M. D.; Eydlin, R. A.

ORG: Kazakh Geological Trust (Kazakhskiy geologicheskii trust)

TITLE: Deep tectonic regionalization of kazakhstan on the basis of  
geophysical data

SOURCE: Sovetskaya geologiya, no. 6, 1966, 34-47

TOPIC TAGS: tectonics, earth crust / Kazakhstan

ABSTRACT:

All available data are reviewed for the purpose of tectonic regionalization of Kazakhstan. In particular, observations along a series of profiles with a total length of 4,600 km were used. A merit of the article is that the authors describe exactly how all materials were used in regionalizing the area, and the study could be used as a model for regionalization of other areas on the basis of equivalent information. The graphic representation of the generalized data is particularly clear and easily interpreted. Fig. 2 shows analysis of the gravity field over columns of the earth's crust of identical thickness in different areas; Fig. 2 effectively shows the generalized characteristics of the deep structure of the principal tectonic blocks of Kazakhstan; Fig. 4 is a composite map of the distribution of deep faults and areas of intrusive magmatism in Kazakhstan; Fig. 5 is a map of the tectonic regionalization on the basis of geological-geophysical data. Orig. art. has: 5 figures. (JPRS: 38,460)

Card 1/1 SUB CODE: 08 / SUBM DATE: none / ORIG REF: 018 UDC: 550.3:551.24(574)

0926 1383

ACC NR: AR6032146 SOURCE CODE: UR/0169/66/000/006/G005/G005

AUTHOR: Andreyev, A. P.; Brodovoy, V. V.; Gol'dshmidt, V. I.; Kuz'min, Yu. I.; Morozov, M. D.; Eydlin, R. A.

TITLE: Abyssal tectonic zoning of the territory of Kazakhstan according to geophysical data

SOURCE: Ref. zh. Geofizika, Abs. 6G32

REF SOURCE: Sb. Geofiz. issled. v Kazakhstane. Alma-Ata, Kazakhstan, 1965, 9-27

TOPIC TAGS: geophysics, geology, geographic location, tectonics, earth crust

ABSTRACT: A description is given of the sequential development of the geological interpretation of geophysical data, from factual material to maps of the abyssal structure of the earth's crust and the typification of its individual blocks, the quantitative characteristics of the abyssal fractures, and the development of a system of geotectonic zoning. It is shown that the Moho discontinuity (M) was built according to graphoanalytic correlation dependencies between zonal anomalies and the delineation of the M boundary, and studied according to deep seismic

Card 1/3

UDC: 550.311(574)

ACC NR: AR6032146

sounding and deep seismic profiling. An isodepth system of the "basalt" and "diorite" surface layers was built. Knowledge of the delineation of the M surface makes it possible to construct systems of isopachous lines of the "basalt" layer. A simultaneous analysis of the Moho and Conrad discontinuities provides data for the definition of the structure of the earth's crust in various regions. The coefficient of basalt saturation ( $K_s$ ), equal to the relation between the thickness of the "basalt" layer and the general thickness of the earth's crust, is used to define individual blocks. Earth-crust blocks of similar structure are defined by similar coefficient values (0.77 and 0.67 for the Akbastau and Kokchetav massifs, respectively, 0.38 for the Russian platform, etc.) The simultaneous analysis of the definition of the core of interfaces makes it possible to suppose that zonal anomalies can be caused by a possible heterogeneity in the density of the mantle. Maps of anomalous magnetic fields, gamma fields, etc., and geological information are brought out to study the structure of the "granite" layer aside from the gravitation field. The authors synthesize the data obtained and work out regional tectonic delimitations of areas of intrusive magnetism, abyssal fractures, deep-seated faults, preorogenic synclinales, foredeeps, intermountain depressions, superimposed troughs, etc. The deep faults are divided into 4 groups: those reflected in the M surface; those not reflected in it, but controlled by ultrabasite belts; those manifested in the "basalt" layer; and those dying out in the "granite"

Card 2/3

ACC NR: AR6032146

and "diorite" layers. The structure of the basic geotectonic blocks of the Kazakhstan-Caspian tectonic syncline, group of ancient rigid folding structures, including the Kokchetav, Balkhash, Akbastau, Slavgorod, and Aral blocks, and areas of Caledonian and Hercynian folding. It is shown that the faults of the first group are concentrated mainly in eastern Kazakhstan; the displacement of blocks contacting under it reaches 5—7 km, while the extension reaches 500—1000 km. The faults of the second group are oriented mainly in the north-east and meridional directions. They are widespread, as are those of the third and fourth groups. The complex tectonic-formation block structure of Kazakhstan is caused by the coincidence of the main abyssal faults. The bibliography contains 28 entries. G. Reysner. [Translation of abstract]

SUB CODE: 08/

Card 3/3

ACC NR: AR6024837

SOURCE CODE: UR/0169/66/000/004/G003/G004

AUTHOR: Bekzhanov, G. R.; Brodovoy, V. V.; Gol'dshmidt, V. I.; Zhivoderov, A. B.; Zlavdinov, L. Z.; Ivanov, O. D.; Klezhin, I. N.; Kolmogorov, Yu. A.; Bachin, A. P.; Kotlyarov, V. M.; Kuz'min, Yu. I.; Kuminova, M. V.; Kunin, N. Ya.; Lyubetskiy, V. G.; Melent'yev, M. I.; Morozov, M. D.; Tret'yakov, V. G.; Tychkova, T. V.; Tsaregradskiy, V. A.; Eydlin, R. A.

TITLE: A schematic geophysical map of Kazakhstan

SOURCE: Ref. zh. Geofizika, Abs. 4G17

REF SOURCE: Sb. Geol. rezul'taty prikl. geofiz. Geofiz. issled. stroeniya zemn. kory. M., Nedra, 1965, 142-154

TOPIC TAGS: geologic survey, geologic prospecting, map

ABSTRACT: Regional geophysical surveys are conducted in Kazakhstan to divide the territory into tectonic regions, to study its plutonic structure, and to solve some problems of geophysical mapping. The results of these surveys will make it possible to establish structural belts and regions in which minerals are likely to be found. The basic material will be obtained from investigations of the magnetic and gravitational fields in combination with seismic studies. In the magnetic and gravitational fields, tectonic and plutonic seams are isolated which correspond to terraces in the

Card 1/2

UDC: 550.311(574)

ACC NR: AR6024837

Mohorovicic discontinuity. Methods of regional geophysics are used to study the plutonic structure of a folded base, the structure and thickness of sedimentary sheaths, and to indicate prospective petroleum bearing uplifts. [Translation of abstract]  
M. Speranskiy

SUB CODE: 08

Card 2/2

USSR/Engineering - Foundry, Equipment Feb 51

"Foundry Intermittent Conveyor With Automatic Control," M. F. Morozov, Engr, "Krasnyy Dvigatel', " Glavavtotorodetal'

"Litey Protz" No 2, pp 15, 16

Conveyor is to mechanize delivery of molds to pouring and shaking-out stations, and return of flasks to molding machs. Working cycle of conveyor is 120 sec. Conveyor consists of 100 cars moving along rails laid in close oval 55.3 m long with end radius of curvature of 1.5 m. It is driven by 20-kv motor, located

185T47

USSR/Engineering - Foundry? Equipment Feb 51  
(Contd)

so that conveyor chain pulls 90 cars and pushes only 10 cars near shaking-out grate. Describes operation of conveyor.

185T47



MOROZOV, M.F.

Making bimetallic bushings by the immersion method. Lit.proizv.  
no.10:29-30 0'55. (MLRA 8:12)  
(Machinery industry) (Founding)

1. MOPOZOV, M. G.
2. USSR (600)
4. Trucks
7. Comparative data on fattening different breeds of trucks, *Izvestiya*, No. 11, 1958.
9. Monthly List of Russian Accessions, Library of Congress, March, 1958. Unclassified.

MCROZOV, M. G., Engineer

"Investigation of the Properties of Liquid Tympan." Sub 24 Mar 47,  
Moscow Polygraphic Inst

Dissertations presented for degrees in science and engineering in  
Moscow in 1947. Cand Technical Sci

SO: Sum.No. 457, 18 Apr 55

BUMAZHNYI, Lev Osipovich; MOROZOV, Mikhail Georgiyevich; FLORINSKIY, I.I.,  
red. izd-va; SVERDLOV, A.G., tekhn. red.

Magnitogorsk. Red. kollegiya: P.V. Abrosimov i dr. Moskva, Gos.  
izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1958.  
22 p. (MIRA 11:7)

1. Soyuz arkhitektorov SSSR.  
(Magnitogorsk--Description)

*MOROZOV, M. S.*

37-1-22/30

AUTHOR: Morozov, M. S.

TITLE: Interaction of the Supersonic Flow With the Rectilinear Hollow on a Flat Plate (Vzaimodeystviye sverkhzvukovogo potoka s pryamougol'nym uglubleniyem na ploskoy plastine).

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 1, pp. 163-169 (USSR)

ABSTRACT: In the course of the last years works on the investigation of the interaction of the supersonic air flow with bodies showing transversal hollows on the surface were carried out in the laboratory for combustion-physics of the Institute for Energy AN USSR. The results obtained on the occasion of the investigation of a plate with a rectilinear hollow are given. Data on the distribution of static stress, of the coefficient of the "restoration" and of the coefficient of heat transfer along the bottom of the hollow at various depths of the hollow are given. The depth of the cavity has surpassed the depth of the boundary layer before the change from the laminar into the turbulent flow by several times. It is demonstrated that the two types of flow occurring are not only distinguished by the shape of their stream line but also by an important difference as to the distribution of static stress, by the coefficient of the restoration and the coefficient of heat transfer. In the range of the depth measurements investigated the

Card 1/2

Interaction of the Supersonic Flow With the Rectilinear Hollow on a Flat Plate. 57-1-22/30

flow pattern, the distribution of stress and heat transmission for the first flow pattern inclusive, is determined mainly by the ratio of the length of the hollow to its depth. The presence (or occurring) of a hollow of that kind in the body intensifies heat transmission. The work was carried out under the direction of the corresponding member of the AN USSR A. S. Predvoditelev. Scientific chief cooperator Motulevich V. P. assisted. There are 3 figures, 3 references, 1 of which is Soviet.

ASSOCIATION: Power Institute imeni G. M. Krzhizhanovskiy AS USSR Moscow (Energeticheskij inst. im. G. M. Krzhizhanovskogo AN SSSR Moskva).

SUBMITTED: February 26, 1958

AVAILABLE: Library of Congress

Card 2/2

MURCZOV, M. G.: Master Thesis (196) -- "Experimental investigation of the interaction of a supersonic stream with a rectangular depression in a flat plate". Moscow, 1968. 114 pp (Acad Sci USSR, Power Engineering Inst. Dr. V. M. Kuznetsovskiy), 120 copies (KL, 10-14, 1968, 1969).

81832

S/179/60/000/02/005/032

EO31/E213

10.2000

AUTHOR: Morozov, M. G., (Moscow)

TITLE: Acoustic Radiation From Cavities Over Which There is a  
Supersonic Flow of Air,

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh  
nauk, Mekhanika i mashinostroyeniye, 1960, Nr 2,  
pp 42-46 + 2 plates (USSR)

ABSTRACT: The experiments were conducted in a supersonic wind tunnel  
with an open working section of 27 by 27 mm, in which the  
lower wall served as the model, parts of it being movable  
at right angles to the flow to provide cavities of  
different depth  $h$  and length  $l$  (along the tunnel).  
To investigate the effect of the state of the boundary  
layer and the form of the cavity on the acoustic  
radiation, and to study the flow over a series of cavities,  
a metallic model with a milled surface was used as the  
floor of the cavity. The nominal Mach number of the  
experiments was 1.7. Rectangular cavities were the first  
objects of study. The Reynolds number before the  
discontinuity in the floor calculated from the air  
parameters at the wall temperature was 120 000. An

Card 1/3 expression is given for the frequency of the acoustic



81832

S/179/60/000/02/005/032  
E031/E213

Acoustic Radiation From Cavities Over Which There is a Supersonic  
Flow of Air

radiation as a function of the incident flow velocity and the length of the cavity. The validity of the expression is recognised to be limited. Next, more general types of cavity were considered, among which were triangular ones with vertical front walls or vertical rear walls. Finally, a succession of cavities is considered. These are either various rectangular or triangular shapes, or a series of smooth arcs. Acoustic radiation is observed only from the first two of the three rectangular cavities. The picture is complicated in the case of the triangular cavities. There does not appear to be acoustic radiation from the series of smooth arcs. But in all the cases the thickness of the boundary layer increases sharply after the cavities. A series of experiments was conducted to investigate the effect of the thickness and state of the boundary layer on the acoustic radiation. In discussing the results, it is stated that the ultrasonic radiation is the result of the appearance of a separation in the travelling waves. The cause may be (1) vortices breaking away from the

Card 2/3

81832

S/179/60/000/02/005/032

EO31/E213

Acoustic Radiation From Cavities Over Which There is a Supersonic Flow of Air

trailing edge of the cavities; (2) instability of the boundary of the separating line; (3) the excitation of a volume of air in the cavity similar to the excitation of an acoustic resonator. Photographs show that behind the cavities the boundary layer has a periodic character. The scale was approximately proportional to the length of the cavity. It is thought that vortex filaments which appeared are an auxiliary phenomenon, and do not determine the mechanism by which the oscillations are excited. Causes for the formation of travelling waves on the surface of separation are discussed. It is concluded that the appearance of travelling waves of the surface of separation (mixing region) is the result of the appearance of a self-oscillatory system consisting of the boundary of separation and a volume of air in the cavity. There are 4 figures and 7 references, 1 of which is English and 6 Soviet (one being the Russian translation of an American textbook).

SUBMITTED: July 7, 1959

Card 3/3

82901

24,3100

S/120/60/000/02/032/052

AUTHORS: Valeyev, Kh.S., Vorontsov, Yu.N. and Morozov M.G.

TITLE: Spark Generator with a Flash Duration of Less Than 1  $\mu$ s

PERIODICAL: Pribery i tekhnika eksperimenta. 1960. No 2, pp 122 - 123 (USSR)

ABSTRACT: A device is described which can be used to produce light flashes having a duration of less than 1  $\mu$ s. The device is used to obtain photographic records of the flow pattern in an ultrasonic aerodynamic tube. / The principle of the instrument was described by Fitzpatrick and Hubbard (Ref 1) and Beams et al (Ref 2). A general scheme is illustrated in Figure 1. The device consists of a capacitor with a spark gap 2, a high resistance R (equal to 200 M $\Omega$ ), a DC voltage source and a blocking device 1 which earths the capacitor when the supply is switched off. A cylindrical capacitor with a calcium titanate dielectric having an electrical strength of 18 - 22 kV/mm, a resistivity of  $10^{14}$  -  $10^{15}$   $\Omega$  cm and a

Card1/3

82901

S/120/60/000/02/032/052

E032/E314

Spark Generator with a Flash Duration of Less Than 1  $\mu$ s

dielectric constant of 140 - 150 was employed. Other materials which can be employed are solid solutions of barium titanate, strontium titanate and "SVT material". Figure 2 shows the illuminating device. It consists of a capacitor and a spark gap formed by the leads 1 and 2, having 1.5 mm dia tungsten electrodes at the ends. The dielectric 5 of the capacitor was made of calcium titanate and the electrode 4 of silver. In order to reduce the impedance, the length of the leads to the spark gap was kept as small as possible. Tungsten was chosen in order to reduce afterglow. The device is held in position by the metal holder 3 fixed to an earthed base and is charged through the line 7. The charge is excited by a high-voltage generator (AKI-50) through a resistor of 200 M $\Omega$  (glass tube 2.5 x 2.5 mm<sup>2</sup> ~ 1 m in length filled with alcohol and using fused molybdenum electrodes). At a voltage of 16 - 20 kV and a spark gap of 5-10 mm the

Card 2/3

9140E

S/120/60/000/02/052/052

Spark Generator with a Flash Duration of <sup>EO 52/E 514</sup> Less Than 1  $\mu$ s

discharge frequency lay between 0.3 and 0.5 cps (in atmosphere at NTP). The illuminator was used to obtain photographic records of processes in an ultrasonic aerodynamic tube. The processes could also be estimated visually in view of the low frequency involved. There are 3 figures and 2 English references.

ASSOCIATION: Gosudarstvennyy issledovatel'skiy elektrokeramicheskiy institut (State Research Institute for Electroceramics) ✓

SUBMITTED: January 25, 1959

Card 3/3

no. 3900

S/170/60/003/03/23/034  
B014/B007

AUTHOR: Morozov, M. G.

TITLE: The Spark Schlieren-photography Process in Investigations of a Circular Flow Round Bodies in an Aerodynamic Supersonic Tunnel

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 3, pp. 126-128

TEXT: In the introduction, the author describes the spark device, which consists of a d.c. high voltage source, a high alcohol resistor with 200 megohms, and a coaxial cable-capacitor with spark gap. Fig. 1 shows a photograph of this device. For the schlieren photographs a Tepler Maksutov apparatus of the type MAE-451<sup>35</sup> (IAB-451) was used. Fig. 2 shows two pictures of the flow round a cylinder having an 8 mm diameter by a free air current with the Mach number 1.7. The first of them was taken after an exposure of  $10^{-6}$  seconds, the second after an exposure of  $2 \cdot 10^{-3}$  seconds. It may be seen herefrom that spark photographs and ordinary photographs supplement each other favorably. Fig. 3 shows a

Card 1/2

The Spark Schlieren-photography Process in      S/170/60/003/03/23/034  
Investigations of a Circular Flow Round      3014/B007  
Bodies in an Aerodynamic Supersonic Tunnel

spark-schlieren photograph of the boundary layer of a plane plate. From this photograph it is possible to determine accurately the transition of the boundary layer flow from laminar to turbulent flow, and to draw conclusions as to the thickness of the boundary layer. There are 3 figures and 3 references: 1 Soviet and 2 English.

ASSOCIATION: Energeticheskiy institut im. G. M. Krzhizhanovskogo  
AN SSSR, g. Moskva  
(Institute of Power Engineering imeni G. M. Krzhizhanovskiy  
of the AS USSR, City of Moscow)

Card 2/2





A gas dynamic ...

3. 24/02/000/000, 014/11  
3234, 2405

During an air temperature up to 400°. A set of exchangeable  
profiled nozzles makes it possible to change the Mach number  
from supersonic values to  $M = 3.1$  during vacuum work. The diameter  
of the working part is 30 - 40 mm (exact dimensions are not  
given in the paper). There are optical viewing glasses in the side  
walls of the nozzle and in the cylindrical buffer chamber located  
in diameter. The tunnel is provided with a coordinate device and  
with apparatus for measuring and recording the pressures and tem-  
peratures (thermocouples, manometers, vacuum meter, automatic re-  
corders, oscillographs). Optical observation of flow can be made  
with the aid of the interference-shadow device IT-14 which is a  
combination of a Mach-Zehnder type interferometer with a laser's  
device. Special measures are taken for isolating the optical de-  
vice from vibrations (an isolated support with damping rubber  
bushings). The IT-14 device is provided with photographic camera-  
lens and illuminating devices of various types, among them a  
spark installation with an exposure less than  $10^{-7}$  sec. The paper  
is illustrated by interferograms. [Abstracter's note: complete  
translation.]

34330

S/124/62/000/002/005/014  
D234/D302

10 1500

AUTHORS Morozov, M.G., Yeroshenko, V.M. and Petrov, Yu N.  
TITLE Flow in stagnation zones on the surface of bodies in a  
supersonic air stream  
PERIODICAL Referativnyy zhurnal, Mekhanika, no. 2, 1962, 28, abstract  
2B161 (V sb. Fiz. Gazodinamika i teplotobmen. M. AN SSSR  
1961, 60-65)

TEXT The authors give the results of experimental investigation of the  
flow in a rectangular depression on a plane plate in a supersonic air  
stream. The experiments were carried out in a supersonic wind tunnel,  
the Mach number being  $M = 1.69$ . By observing the behavior of sounding  
devices placed in the depression, the presence of a strong backward flow  
was established. Measurements of pressure drop showed that the velocity  
of stream near the front wall of the depression is small. However, the  
behavior of sounding devices and the track of a drop photographed on the  
transparent lateral wall of the working part of the tube show that there

Card 1/2

S/124/62/000-002, 005-014  
D234/D302

Flow in stagnation zones on the ...

is no region of gas at rest near the front wall of the depression. Graphs are given illustrating the variation of static pressure at the rear wall of the depression for different widths of the latter and different heights of the front wall. To determine the velocity of backward flow near the bottom of the depression, pressure measurements were carried out with the aid of sounding devices. As a result, the Mach number of the backward flow for a certain width of the depression was found to be approximately 0.3. It is noted that the introduction of the sounding device into the stagnation zone caused an appreciable distortion of the stream and therefore the value of Mach number so obtained cannot be regarded as sufficiently accurate. [Abstracter's note: Complete translation]

Card 2/2

S/885/62/000/000/034/035  
D234/D308

AUTHORS: Petrov, Yu. N. and Morozov, M. G.

TITLE: Measurement of heat flows by the exponential method

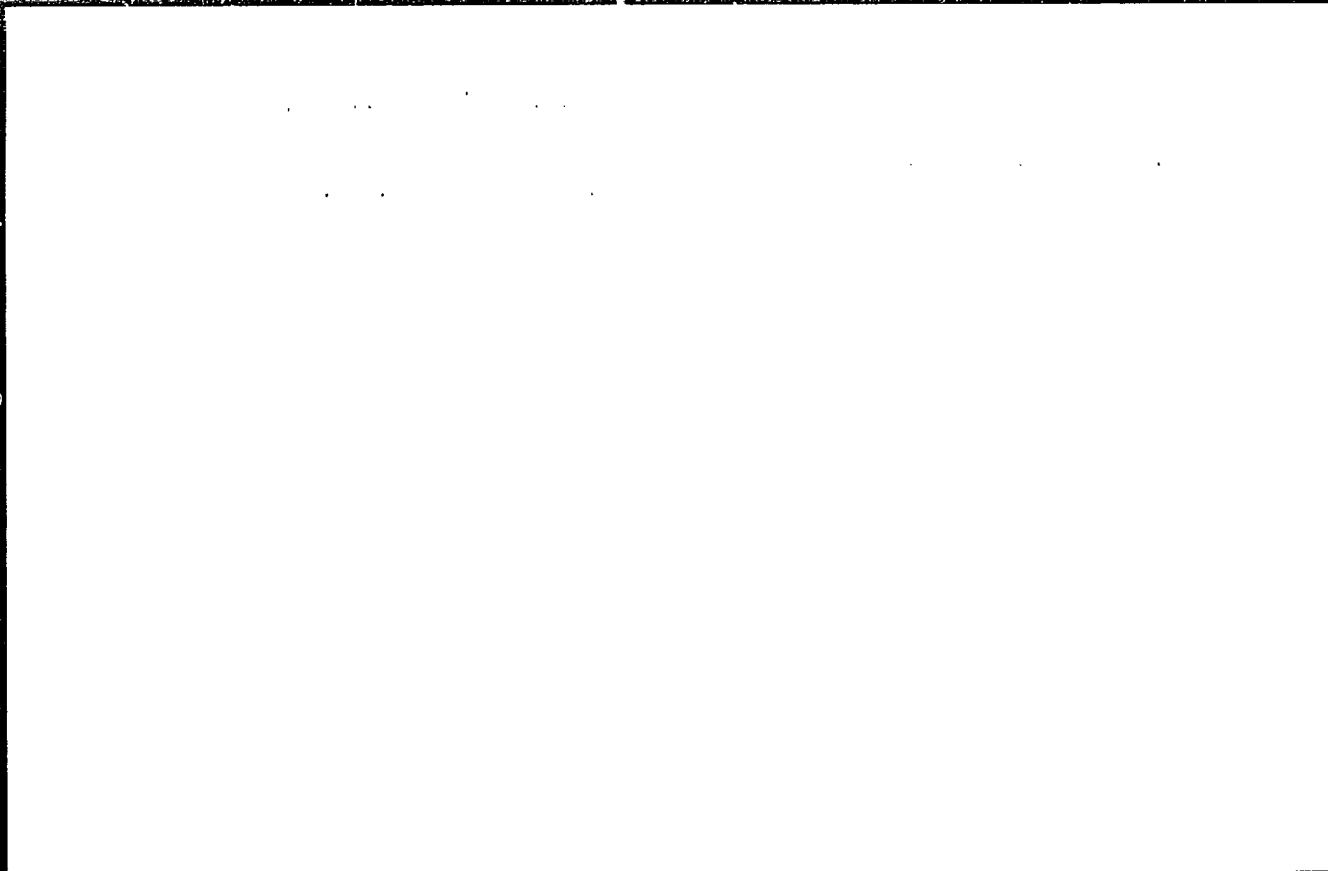
SOURCE: Akademiya nauk SSSR. Energeticheskiy institut. Fizicheskaya gazodinamika, teploobmen i termodinamika gazov vysokikh temperatur. Moscow, Izd-vo AN SSSR, 1962, 300-303

TEXT: The authors investigated the effect of the 'history' of the boundary layer on the measurement of heat flows on cylinders, wedges, cones and plates in supersonic air streams. The experiments are described in detail. Conclusion: in all experimental measurements of heat exchange with supersonic flows using nonstationary methods one must take into account the 'history' of the boundary layer, i.e. the initial temperature distribution and the variation of heat exchange along the surfaces. There are 4 figures and 1 table.

Card 1/1

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001135220008-9



APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001135220008-9"

L 23479-65 / EWT(n)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b) Pf-4 JD/HM

ACCESSION NR: AP5002338

S/0145/54/000/011/0129/0133

AUTHOR: Morozov, M. G. (Candidate of technical sciences, Docent); Varvashevich, K. K. (Engineer)

TITLE: The structure and properties of the fusion zone of perlitic and austenitic steel

SOURCE: IVUZ. Mashinostroyeniye, no. 11, 1964, 129-133

TOPIC TAGS: steel structure, steel mechanical property, perlitic steel, austenitic steel, chromium content, weld seam. 6

ABSTRACT: At present, steels with various physical properties and chemical compositions are often welded together. When austenitic and non-austenitic steels are welded, metal layers are formed in the fusion zone with reduced properties. The diffusion processes in the joint lead to a heterogeneous structure in the weld, and a martensitic type metal is formed. In the present work, metallographic, magneto-metallographic, magnetic anisotropic and mechanical tests and colored oxide films were used to investigate the welds. A bridge was used to measure the stresses in the joint. The colored oxide films supplemented metallographic and magnetic tests, as well as measurements of microscopic hardness and stress. The main method for testing the composition and welding process was microscopic analysis. Hardness tests showed that the highest values were near the

Card 1/2

L 23479-65

ACCESSION NR: AP5002338

location of the austenitic steel. The stresses were lowered by heat treatment, since normalizing and annealing relieved the internal stress and tempering led to disintegration of the martensite. Analysis of the tests indicates that the quality of welding of different steels is affected not only by the austenite content, but also by the chromium content. Consequently, the austenitic content coefficient should be corrected by a factor showing the chromium content. Bending tests were made until cracks appeared in the metal, this being the most rigid test of all for welds. Analysis of the data obtained showed a definite relationship between the width of the martensitic zone, its hardness and plastic properties and the austenite content. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: Taganrogakiy radiotekhnicheskiy institut (Taganrog radio engineering institute)

SUBMITTED: 27Apr68

ENCL: 00

SUB CODE: MM

NO REF SOV: 006

OTHER: 000

Card 2/2

L 2258-66 EWT(m)/EWP(w)/EWP(i)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) MJW/  
 ACCESSION NR: AP5009478 JD/HW S/0145/65/000/002/0162/0164

AUTHORS: Morozov, M. G. (Candidate of technical sciences, Docent); Varvashovich,  
 K. K. (Engineer); Lobanova, L. V. (Engineer)

TITLE: On the transition zone structure of plated steel

SOURCE: IVUZ. Mashinostroyeniye, no. 2, 1965, 162-164

TOPIC TAGS: martensite steel, perlite steel, plating, steel microstructure

ABSTRACT: The structure of the layer between steel 20 and a coating of stainless steel Kh18N9T was studied. This example is typical for all perlite type steels plated with austenitic steels. Carbon from the perlite steel and alloy elements from the stainless steel diffuse into the transition zone and form a martensite structure. Studies of the microstructure of this zone were not conclusive, mainly because of the minimal thickness of the zone. A method of colored layers was used for the examination of changes due to diffusion. The microstructure of a sample is discussed, and changes in microhardness are shown in a simple graph. In the case of peeling of the coating, brittle imperfections were observed in the

Card 1/2



L 2258-66

ACCESSION NR: AP5009478

transition zone. The martensite steel does not disappear during thermal treatment, but the thickness of the zone varies, due to chemical changes. The time of cooling also affects the martensite zone. Orig. art. has: 1 graph and 2 figures.

ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut (Taganrog Radiotechnical Institute)

SUBMITTED: MM

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 001

Card

2/2

I 22446-66 EWT(m)/EWP(f)/EPF(n)-2/EWA(d)/T-2/EWP(t)/ETC(m)-6 IJP(c)  
 ACC NR: AP6013608 JD/WW/DJ SOURCE CODE: UR/0143/65/000/009/0115/0119

AUTHOR: Lavysh, A. I. (Engineer); Morozov, M. G. (Candidate of technical sciences;  
 Docent)

ORG: Belorussian Polytechnic Institute (Belorusskiy politekhnicheskiy institut)

TITLE: Wear resistance of alloys used in gas turbines

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 9, 1965, 115-119

TOPIC TAGS: gas turbine, wear resistance, heat resistant alloy, austenite, austenitic steel, heat resistant steel

ABSTRACT: The authors propose that the determination of the resistance to abrasive wear at high temperatures be used as the criterion for the preliminary evaluation of the wear resistance of the alloys used in gas turbines operating in a dust-laden gas flow (or liquid flow). On the basis of the wear resistance tests of alloys at 400, 500 and 600°C it is shown that in austenitic heat resistant alloys the relationship between chemical composition and wear resistance at high temperatures is a function of the coefficient of austenite content. Thus, at relatively low temperatures the alloys with lower coefficients of austenite content display a higher wear resistance. The increase in temperature leads at first to a leveling of the wear resistance of austenitic steels and subsequently to the relative increase in the

Card 1/2

UDC: 621.438:539.375

L 22446-66

ACC NR: AP6013608

wear resistance of high-austenite steels. For comparison, the extent and character of the change in the wear resistance of two ferritic heat-resistant steels were checked. It turned out that, by contrast with austenitic steels, the wear resistance of ferritic steels at high temperatures is much greater, and the mechanism of their wear also is different, since in this case, unlike in the case of austenitic steels, the significance of the fracture of alloys along the grain boundaries is smaller. Orig. art. has: 1 figure and 2 tables. [JPRS]

SUB CODE: 20, 13 / SUBM DATE: 13Mar64 / ORIG REF: 006

Card 2/2

ACC NR: AP7000041

SOURCE CODE: UR/0055/66/000/006/0108/0113

AUTHOR: Morozov, M. G.; Baryshev, Yu. V.

ORG: Department of Hydromechanics (Moscow University), Scientific Research Institute of Mechanics (Otdel gidromekhanika, NIIM)

TITLE: Supersonic flow past bodies of revolution with annular recesses

SOURCE: Moscow. Universitet. Vestnik. Seriya I. Matematika, mekhanika, no. 6, 1966, 108-113

TOPIC TAGS: supersonic aerodynamics, stagnation pressure, shock wave, aerodynamic drag, laminar flow, turbulent flow

ABSTRACT: The results of an experimental investigation of supersonic flows past bodies of revolution with annular recesses of various lengths by means of a wind tunnel in the Mach ranges  $M = 1.79$  to  $3.69$  and  $Re = 2.9 \times 10^5$  to  $10.5 \times 10^5$  for  $1$  cm are presented. Various cylindrical models  $6$  to  $60$  mm in diameter with conical forward sections and with annular recesses of different lengths and depths were considered. The length of the recess  $l_{cr}$  called critical for which the flows changed from flows with one to flows with two stagnation regions and also its ratio to its depth were determined experimentally from schlieren photographs. An attempt was made to establish the relationship between  $l_{cr}/h$  and  $M$  and  $Re$ . The results of measurements on aerodynamic drag confirmed the conclusions from an analysis of the

Card 1/2

UDC: 533.

ACC NR: AP7000041

available data stating that the transition from the first to the second type of flow is accompanied by a jump-type increase in drag, thus an increase in the diameter of the rear cylinder in the region  $l_{cr}$  may lead to a decrease in drag, and vice versa. The transition from the first type of flow to the second occurs in a quite narrow range of the value  $Kl_{cr}/L = 12$  to  $22$ , where  $k$  is the coefficient accounting for the curvature of the model. Orig. art. has: 5 figures.

SUB CODE: 20/ SUBM DATE: 12Nov65/ ORIG REF: 003/ OTH REF: 003/  
ATD PRESS: 5107

Card 2/2

L 42-66

APR 1977

FILE CODE: UR/0077/000117

APR 1977

ORIGIN: K. V. Demonsosov (Moskovskiy gosudarstvennyy universitet, Institut Mekhaniki (Nauchno-issledovatel'skiy institut mekhaniki)

TITLE: A simple apparatus for making instantaneous schlieren photographs

SOURCE: Zhurnal nauchnoy optiki i kinematografii, v. 11, no. 1, 1977, 31-32 and insert facing 31

TOPIC TAGS: schlieren photography, photographic film, spark camera, spark gap, light source, dielectric capacitor

ABSTRACT: The author describes a simple unit for making instantaneous schlieren photographs. A diagram of the lighting circuit. The main part of the unit is the ceramic capacitor used for the lighting. The spark gap is on the collector in order to reduce the inductance in the hookup wires. An example of this type of unit is given in the figure. The device has a 1000 µf KVKG-3 capacitor and tungsten electrodes. Lighting duration of the spark discharge was determined by the direct method of working with the SFR high speed photoregistering unit. The results show that the lighting duration is a function of current-collector, only.

Card 1/2

UDC: 770.37



L 21983-66 EWT(1)/ETC(f)/EPF(n)-2/ENG(m) IJP(c) AT

ACCESSION NR: AP5025993

UR/0294/65/003/005/0765/0770  
621.313.2:538.4

AUTHOR: German, V. O.; Morozov, M. G.

21.44.55  
TITLE: Direct current plasmatron and some experimental results of its operation

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 5, 1965, 765-770

TOPIC TAGS: plasma generator, plasma physics, temperature measurement

ABSTRACT: The article shows a longitudinal section of the plasmatron (See Enclosure 01). The electrode is in the form of cylindrical tubes, whose outer surfaces are cooled with water. The diameter of the nozzle 5 is 30 mm, and the inner diameter of the rear electrode 1 is somewhat larger than the diameter of the nozzle. The body of nozzle 6 and the vortex chamber 3 are electrically insulated from the body of the rear electrode by Plexiglass packing 2. To avoid erosion of the electrodes and to maintain stable burning of the arc, the working gas is introduced tangentially into the vortex chamber; the regulating valve on the vortex chamber 7 makes it possible to change the rate of whirling inside the nozzle at constant gas feed. A copper insert 9 in the rear electrode limits the

Card 1/3



L 21983-66

ACCESSION NR: AP5025993

free displacement of the arc. The plasmatron was fed by a direct current generator with a rated voltage of 750 volts. A table shows the characteristics of the unit. Depending on the consumption of the working gas and the polarity of the electrodes, the power in the arc varied from 200 to 355 kilowatts. The efficiency changed with a change in the polarity of the electrodes; the highest value was achieved when the nozzle served as the cathode (0.7-0.75). The consumption of working gas varied from 19 to 48 grams/sec. The mean velocity of the gas at the nozzle varied from 350 to 750 meters/sec, and the mean mass temperature of the gas stream varied from 2500 to 4500 K. An investigation of the pulsations of the electric parameters and the rotation of the arc showed the presence of vibrations, divided into three groups according to frequency: of the orders of 1,  $10^3$ , and  $10^4$  cycles. "The authors express their thanks to G. A. Lyubimov for his interest in the work and for his help." Orig. art. has: 6 figures and 1 table

ASSOCIATION: Nauchno-issledovatel'skiy institut mekhaniki MGU im. Lomonosova  
(Scientific Research Institute for Mechanics, MGU)

SUBMITTED: 01 Dec 64

ENCL: 01

SUB CODE: 20

NR REF SOV: 007

OTHER: 004

Card 2/3

L 21983-66

ACCESSION NR: AP5025993

ENCLOSURE: 01

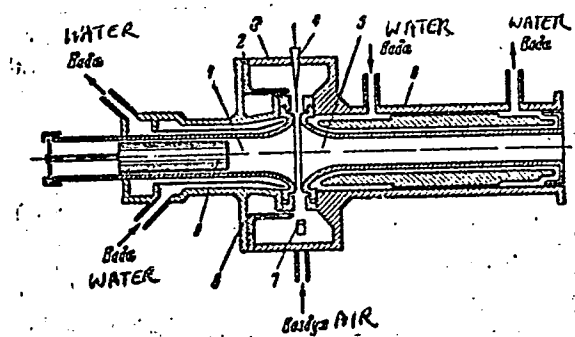


Fig. 1. Schematic of plasmatron

Card 3/3 EV

KORYAKINA, Z.G.; MOROZOV, M.I.

Conference on a facial and paleogeographic study of Mesocenozoic  
sediments in Central Asia. Izv. AN Uz. SSR. Ser. geol. no.3:87-88  
'57. (MIRA 11:9)  
(Soviet Central Asia--Geology, Stratigraphic) (Paleogeography)

IVANOV, Yu.M., prof.; PANFILOVA, A.L., nauchnyy sotrudnik; PANFEROV, K.V. ,  
nauchnyy sotrudnik; PETRI, V.N., prof.; MOROZOV, -M.I., nauchnyy  
sotrudnik; PERMIKIN, I.P., nauchnyy sotrudnik

Moisture-resistant parquet staves made of birch or beech. Rats. 1  
izobr. predl. v stroi. no.5:27-30 '58. (MIRA 11:6)

1. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh  
konstruktsiy Akademii stroitel'stva i arkhitektury SSSR (for  
Panfilova, Panferov),stantsiya Perovo - 3 Moskovskoy oblasti.  
2. Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta promyshlennykh sooruzheniy (for Morozov, Permikin),  
Sverdlovsk, ul. Krenkelya, d.5. (MIRA 11:6)  
(Parquet floors)

MOROZOV, M.I.

Morozov, M. I. Approximation of functions satisfying a Lipschitz condition by means of interpolation polynomials with double points of interpolation. Uspehi Matem. Nauk (N.S.) 5, no. 4(38), 156-161 (1950). (Russian)

The author determines the upper bound for certain classes of  $f(x)$  of the maximum of the remainder in Hermite interpolation for two choices of the interpolation points: trigonometric interpolation to a function of period  $2\pi$  at the points  $x_0 + 2k\pi/n$  (Jackson polynomials) and polynomial interpolation on  $(-1, 1)$  with  $f(x)$  and  $f'(x)$  assigned at the points  $\cos(k-1)\pi/n$ . In the first case  $f(x)$  satisfies

$$|f(x') - f(x'')| < |x' - x''|^\alpha,$$

$0 < \alpha \leq 1$  and the upper bound of the remainder is

$$4n^{-\alpha} \max \{ \sin^2 \frac{1}{2} u \cdot \sum_{k=-\infty}^{\infty} |u - 2k\pi|^{2-\alpha} \} + o(n^{-\alpha})$$

for  $\alpha < 1$ , and  $4\pi^{-1}n^{-1} \log n + O(n^{-1})$  for  $\alpha = 1$ . The second case is considered only for  $\alpha = 1$ , and the same bound is given, but not shown to be attained except for odd  $n$ .

R. P. Boas, Jr. (Evanston, Ill.).

Source: Mathematical Reviews,

Vol. 12, No. 2

MOROZOV, M. I.

Morozov, M. I. On certain questions of the uniform approximation of continuous functions by functions from interpolation classes. Doklady Akad. Nauk SSSR (N.S.) 77, 381-383 (1951). (Russian)

A Chebyshev system  $\{\varphi_i(x)\}_{i=0}^{n-1}$  of real-valued continuous functions on  $[0, 1]$  is one having the property that a non-trivial linear combination  $(1) \ a_0\varphi_0(x) + \dots + a_{n-1}\varphi_{n-1}(x)$  has at most  $n$  roots on  $[0, 1]$ . It is well known that such a system has the following extremal properties [cf. e.g. S. Bernstein, *Leçons sur les propriétés extrémales*, Gauthier-Villars, Paris, 1926, pp. 1-5]. If  $f(x)$  is a given continuous function, (a) for a set of  $n+1$  distinct points  $E_{n+1}$ , there is a unique function  $(1)$  deviating least from  $f(x)$  on  $E_{n+1}$ ; (b) there is a unique function  $(1)$  deviating least from  $f(x)$  on  $[0, 1]$  and the deviation is the least upper bound of the deviations for all sets  $E_{n+1}$ ; (c) the extremal function in (b) is characterized by the fact that its difference from  $f(x)$  attains its maximum absolute value at at least  $n+1$  points with alternating signs. The author announces that he has extended these results to approximating functions much more general than (1), under much weaker hypotheses than have been used in previous work in this direction. He uses a single-valued function  $F(x; a_1, \dots, a_n)$ ,  $0 \leq x \leq 1$ ,  $a_i' \leq a_i \leq a_i''$ , continuous as a function of its  $n+1$  arguments, and denotes by  $D(F)$  the set of all values taken by  $F$  for fixed  $x$  and arbitrary  $a_i$ . The function  $F$  is to have the following "interpolation property": every system

$$y_i = F(x_i; a_1, \dots, a_n), \quad i = 1, \dots, n,$$

where  $\{x_i\}$  are all different and  $y_i \in D(F)$ , has a unique solution  $(a_1, \dots, a_n)$ . The function  $F$  determines the class  $K(F)$  of continuous  $f(x)$  each of which arises by assigning a set of parameters  $\{a_i\}$ ; this is the "interpolation class" of the title. Then (a), (b), (c) remain true if the class of linear combinations (1) is replaced by  $K(F)$ . R. P. Boas, Jr.

gmd

Vol 12 No 9

MOROZOV, M. I.

Morozov, M. I. On certain questions of the uniform approximation of continuous functions by means of functions from interpolation classes. Izvestiya Akad. Nauk SSSR, Ser. Mat. 16, 75-100 (1952). (Russian)

This paper contains detailed proofs of theorems announced earlier [Doklady Akad. Nauk SSSR (N.S.) 77, 381-383 (1951); these Rev. 12, 680], together with preliminary material on general properties of functions belonging to interpolation classes [definition in the cited review].  
V. P. Boas, Jr. (Evanston, Ill.).

Source: Mathematical Reviews.

Vol. 12, No. 8

SMW JPM

MOROZOV, M.I.

~~Extension of S.M. Bernstein's two theorems to analytic functions~~  
of several variables. Uch. zap. Ivan. gos. ped. inst. 10:6-18 '56.  
(Functions, Analytic) (MLRA 10:4)



MOROZOV, M.I.

The approximation of periodic quasi-smooth functions and functions  
satisfying a Lipschitz condition. Trudy MAI no.61:41-57 '56.  
(MIRA 10:1)

(Functions of complex variables)

MOROZOV M.K. inzhener.

Manually operated electric plastering machines. Spasht. stroi.  
no. 3:19-20 Mr '57. (VLRs 10:7)  
(Plastering) (Building machinery)

MOROZOV, Mikhail Mikhaylovich

[Improvement of meadows subject to flooding] Uluchshenie zalivnykh  
lugov. Alma-Ata, Kazakhskoe gos. izd-vo, 1956. 56 p. (MLRA 10:3)  
(Pastures and meadows)

USSR/Soil Science. Tillage. Land Reclamation. Erosion.

5-5

Abstr Jour: Ref Zhur-Ticl. No 6, 1958, 24813.

Author : ~~Morozov, M.M.~~

Inst :

Title : Deep Unbanked Tillage of the Autumn Plough-Land in  
Kazakhstan.

Orig pub: Zemledeliye, 1957, No 9, 21-24.

Abstract: No abstract.

Card : 1/1

57

MOROZOV, M.M.

Surgical suite. Khirurgia 35 no.8:130-134 Ag '59. (MIRA 13:12)  
(SURGERY, OPERATIVE) (HOSPITALS---ADMINISTRATION)

MOROZOV, M. M.

57/49T32

USSR/Electricity

May 49

Electric Power  
Condensers

"Value of Static Condensers for the Improvement  
of the Cosine  $\phi$ ," M. M. Morozov, Cand Tech Sci,  
3 1/2 pp

"Prom Energet" No 5

Points out advantages to be derived through use  
of static condensers for increasing power factor.  
Considered to be best means available for building  
up reserve power and improving service. Compares  
tabulated data for various commercially produced

57/49T32

USSR/Electricity (Contd)

May 49

condensers. Stresses importance to national  
economy of increasing production of heavy-current  
static condensers of high quality, expanding  
condenser research, and disseminating data for  
optimum condenser use

57/49T32

MOZOV, N. M.

"Soviet Capacitor Construction and its Immediate Problems", Elektricheskoe,  
No. 11, pp 10-19, 1949.

Cand. Tech. Sci Condenser Plant, Ministry of Elec Industry

SO: W-19949, 11 Oct 1951

MOROZOV, Mikhail Mikhaylovich

Cand. Technical Sci.

Mbr., Condenser Plant, Min. Electrical Industry, -c1950-.

"Value of Static Condensers for the Improvement of Cosine,"

Prom. Energet, No. 5, 1949;

"Soviet Condenser Construction and its Immediate Problems,"

Elektrichestvo, No. 11, 1950.

Stalin 3rd Prize, 1950, high-voltage capacitors.



Condensers (Blenkley)

Reference on the article of W. A. Blenckley and A. L. Blenckley: "Direct current static  
condensers: capacity and loss for linear and non-linear dielectric materials." *IEEE Trans.*  
energ. A, 10, 4, 1962.

Out of line of article condensed, 11 pages of text, 1962. 10 pages.

AID P - 3034

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 21/33

Authors : Morozov, M. M., Kand. of Tech. Sci., and S. K.  
~~Medvedev, Eng.~~

Title : Capacitors for power installations

Periodical : Elektrichestvo, 7, 123-129, J1 1955

Abstract : According to the author a-c capacitors of commercial frequency at present have the widest application. They have been greatly improved recently. In the USSR production of special capacitors was started: 1) series capacitors to compensate the reactance of transmission lines, 2) and for high-frequency communication and protection. Series capacitors for outdoor installations have a great overload capacity and permit short voltage surge up to four times the nominal voltage. The author points out most important problems to be solved in the immediate future in power capacitor design and production.

AID P - 3034

Elektrichestvo, 7, 123-129, J1 1955

Card 2/2      Pub. 27 - 21/33

Two tables, 14 photographs, drawings and diagrams, 3  
Soviet references (1946-1949).

Institution : Capacitor Plant of the Ministry of the Electrical  
Engineering Industry, USSR.

Submitted : Ap 15, 1955

MM

SEKEY, G.I., inzhener; BERDICHEVSKIY, G.M., inzhener; SERGEYEV, A.S.,  
kandidat tekhnicheskikh nauk; POLYAKOV, V.A., inzhener; MOROZOV,  
M.M.

Concerning L.V.Litvak's article "Low-voltage capacitors for power  
factor improvement." Prom.energ.12 no.2:13-16 F '57.

(MLRA 10:3)

1. Giprolesprom (for Sekey). 2. Energosbyt Latvenergo (for Sergeyev)  
3. Krivorozhskiy gornorudnyy institut (for Sergeyev). 4. Trest "Kavel-  
elektromontazh" (for Polyakov) 5. Direktor zavoda "Kondensator" (for  
Morozov).

(Condenseres (Electricity))